

BEFORE THE PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

COLUMBIA, SOUTH CAROLINA

HEARING #22-11976

FEBRUARY 3, 2022

10:01 A.M.

ND-2021-44-E:

E⁴CAROLINAS SOUTH CAROLINA CLEAN ENERGY INDUSTRIES TASK FORCE —*Allowable Ex Parte Briefing Regarding the Merger of E⁴Carolinas and South Carolina Clean Energy Business Association, as well as the Introduction of Team Members and Activities of E⁴ Carolinas and the Task Force***ALLOWABLE EX PARTE
BRIEFING****COMMISSION MEMBERS PRESENT:** Justin T. WILLIAMS, CHAIRMAN
Florence P. BELSER, VICE CHAIR; *and* COMMISSIONERS Carolyn L.
'Carolee' WILLIAMS, Stephen M. 'Mike' CASTON, Thomas J.
'Tom' ERVIN^[A/V], Headen B. THOMAS, and Delton W. POWERS, JR.ADVISOR TO COMMISSION: Sandra V. Moser, Esq.
STAFF COUNSEL**STAFF PRESENT:** Jocelyn Boyd, Chief Clerk/Executive Director;
Jo Anne Wessinger Hill, General Counsel; David W. Stark, III,
Esq., Legal Staff; Norman Scarborough, Ph.D., and John
Powers, Technical Advisory Staff; Virginia 'Ginger' Crocker,
Clerk's Staff; Jackie Thomas and Randy Erskine, Information
Technology Staff; Gwen Richardson and Melissa Purvis,
Livestream Technical Staff; and Jo Elizabeth M. Wheat, CVR-
CM/M|GNSC, Court Reporter**APPEARANCES:****BONNIE D. LOOMIS, ESQUIRE**, legal representative of/for
E⁴CAROLINAS SOUTH CAROLINA CLEAN ENERGY INDUSTRIES TASK FORCE,
together with PRESENTERS **HON. JEFFREY S. MERRIFIELD [Board
Chairman/ E⁴Carolinas]**, **WESTON ADAMS [Board Member/ E⁴Carolinas]**,
BRYAN STONE [Board Member/ E⁴Carolinas], and **JOHN MORRISON
[President & CEO/ E⁴Carolinas]****CHRISTOPHER M. HUBER, ESQUIRE**, Designee of the
Executive Director of the **SOUTH CAROLINA OFFICE OF REGULATORY STAFF**

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

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Please note the following inclusions/attachments to the record:

- Presentation Slides (PDF)

P R O C E E D I N G S

CHAIRMAN J. WILLIAMS: Good morning, ladies and gentlemen. Welcome to the Public Service Commission of South Carolina. Today is Thursday, February 3rd; the time is 10:01 a.m.

Please join me in a brief moment of silence.

[Brief pause]

Thank you. Present in the hearing room we have Commissioners J. Williams, C. Williams, Caston, Powers, Belser, and Thomas; joining us virtually we have Commissioner Ervin.

Attorney Moser, if you would, please, read the docket.

MS. MOSER: Thank you, Mr. Chairman. Good morning, Commissioners and –

CHAIRMAN J. WILLIAMS: Attorney Moser, do you have a microphone at the podium, ma'am?

MS. MOSER: [Indicating.] I do. Thank you, Mr. Chairman.

Good morning to Commissioners and all who are present here today, in person or virtually. Today is Thursday, February 3, 2022, and we are here in the Commission's hearing room pursuant to a Notice of Request for an Allowable Ex Parte Briefing from South Carolina Clean Energy Industries Task Force,

[A/V] AUDIO- AND/OR VIDEOCONFERENCED PARTICIPATION

[EI] = ELECTRONIC INTERFERENCE

Allowable Ex Parte Briefing

2/3/22

Re: Introductions, Activities of E⁴, Merger of E⁴Carolinas/SCCEBA,

1 a task force of E⁴Carolinas. The briefing is
2 outlined in Commission Order No. 2021-725.

3 The subject matter noticed to be discussed
4 today relates to the merger of E⁴Carolinas and South
5 Carolina Clean Energy Business Alliance, as well as
6 the introduction of team members and activities of
7 E⁴Carolinas and the task force.

8 This, I would remind everyone, is a briefing
9 and not a hearing. The briefing must be conducted
10 in compliance with the provisions of South Carolina
11 Code Section 58-3-260(C), and the requirements of
12 that statute are, in part, that the allowable ex
13 parte briefing be confined to the subject matter
14 which has been noticed.

15 The South Carolina Clean Energy Industries
16 Task Force shall present information to the
17 Commission at this allowable ex parte on the
18 following items: First, an overview of the merger
19 between E⁴Carolinas and South Carolina Clean Energy
20 Business Alliance; and, second, an introduction of
21 the team members and the various activities of
22 E⁴Carolinas and the task force. I would, therefore,
23 ask the presenters, Commissioners, and the Staff to
24 please refrain from discussing any matters not
25 related to the specific topic.

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Re: Introductions, Activities of E⁴, Merger of E⁴Carolinas/SCCEBA,

1 The statute prohibits any presenter,
2 Commissioners, or Commission Staff from requesting
3 or giving any commitment, any predetermination, or
4 prediction, regarding any action by a Commissioner
5 as to an ultimate issue which is either – either is
6 or is likely to come before the Commission itself.

7 I would also ask the presenters, the Staff,
8 and the Commissioners to refrain from referencing
9 any report, any article, statute, or document –

10 [Webex Connection/Livestream failed]

11 – of any kind, that is not included in today's
12 presentation.

13 **CHAIRMAN J. WILLIAMS:** Attorney Moser, I hate
14 to interrupt your reading of the docket, but we
15 have just lost contact. Let's take a 15-minute
16 recess.

17 [WHEREUPON, a recess was taken from 10:04
18 to 10:17 a.m.]

19 **CHAIRMAN J. WILLIAMS:** Good morning, ladies
20 and gentlemen. Welcome to the Public Service
21 Commission of South Carolina. Thank you for being
22 patient with us as we maneuver through our
23 technical difficulties. Because we don't know
24 whether or not the first attempt at this briefing
25 was successfully recorded, we're going to start

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1 from the top.

2 So we'll start with roll. Present in the
3 hearing room we have Commissioners Williams,
4 Caston, Powers, Belser, C. Williams, and Thomas;
5 joining us virtually we have Commissioner Ervin.

6 Attorney Moser, if you would, please, read the
7 docket.

8 **MS. MOSER:** Thank you Mr. Chairman.

9 Good morning, Commissioners, and to all who
10 are present here today, in person or virtually.
11 Today is Thursday, February 3, 2022. We are here
12 in the Commission's hearing room pursuant to a
13 Notice of Request for Allowable Ex Parte Briefing
14 from South Carolina Clean Energy Industries Task
15 Force, a task force of E⁴Carolinas. The briefing is
16 outlined in Commission Order No. 2021-725.

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18 today relates to the merger of E⁴Carolinas and South
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23 and not a hearing. The briefing must be conducted
24 in compliance with the provisions of South Carolina
25 Code Section 58-3-260(C), and the requirements of

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5 Task Force shall present information to the
6 Commission at this allowable ex parte on the
7 following items: First, an overview of the merger
8 between E⁴Carolinas and South Carolina Clean Energy
9 Business Alliance; and, second, an introduction of
10 team members and various activities of E⁴Carolinas
11 and the task force. I would, therefore, ask the
12 presenters, Commissioners, and Staff to please
13 refrain from discussing any matters not related to
14 the specific topic.

15 The statute prohibits any presenter,
16 Commissioners, or Commission Staff from requesting
17 or giving any commitment, any predetermination, or
18 prediction, regarding any action by any
19 Commissioner as to an ultimate issue which either
20 is or is likely to come before the Commission.

21 I would also ask the presenters, the Staff,
22 and Commissioners to refrain from referencing any
23 report, article, statute, or document of any kind,
24 that is not included in today's presentation. A
25 copy of any document which is referenced during the

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1 briefing must be provided to the Office of
2 Regulatory Staff for inclusion into the record,
3 which will be certified to the Chief Clerk of the
4 Commission, Ms. Jocelyn Boyd.

5 If anyone, during the course of this briefing,
6 exceeds the scope or does not comply with or fails
7 to conduct themselves within the provisions of
8 South Carolina Code Section 58-3-260, governing
9 allowable ex parte briefings, it is expected that a
10 contemporaneous objection will be made.

11 And, finally, everyone in attendance today, in
12 person or virtually, must sign in or register.
13 Everyone in the hearing room or watching virtually
14 must read, sign, and return the form which you were
15 given at the door or the form which will be
16 e-mailed to you for your virtual appearance, which
17 will include instructions and the deadline for its
18 return. It is required by law for each attendee,
19 whether attending virtually or in person, to
20 certify that the requirements contained in Section
21 58-3-260(C) have been complied with in this
22 presentation.

23 Thank you-all for your time and your
24 attention. Thank you, Chairman.

25 **CHAIRMAN J. WILLIAMS:** Thank you, Attorney

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1 Moser.

2 Office of Regulatory Staff?

3 **MR. HUBER:** Good morning, Mr. Chairman, Madam
4 Vice Chair, and members of the Commission. My name
5 is Chris Huber and I am General Counsel for the
6 Office of Regulatory Staff, and I am here today as
7 the designee of ORS's Executive Director for
8 today's allowable ex parte briefing. Thank you.

9 **CHAIRMAN J. WILLIAMS:** You are very welcome,
10 Attorney Huber. Is that a promotion?

11 **MR. HUBER:** Yes, Mr. Chairman. Thank you.

12 **CHAIRMAN J. WILLIAMS:** Congratulations.

13 All right. Ms. Loomis?

14 **MS. LOOMIS:** Thank you, Mr. Chairman. Thank
15 you, Vice Chairman – Chairwoman. My name is Bonnie
16 Loomis, and I am South Carolina Managing Director
17 for E⁴Carolinas, and we are extremely grateful to
18 have the opportunity to be with you today in
19 person, ourselves, and be with those who are
20 joining virtually.

21 I became a member of the E⁴Carolinas team in
22 July of 2020 when the South Carolina Clean Energy
23 Business Alliance combined with E⁴Carolinas. And
24 part of that combination included the two co-chairs
25 of our South Carolina Clean Energy Industries Task

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Force. And I'm going to hand it over to Weston Adams, who is one of those two co-chairs, to introduce himself, our presenters, and his fellow co-chair.

Again, we're very grateful to the Commission, to the Commission Staff – which has been very helpful in putting this together – and also to the Office of Regulatory Staff. Thank you.

CHAIRMAN J. WILLIAMS: Thank you, Ms. Loomis. Attorney Adams.

MR. W. ADAMS [E⁴Carolinas]: Yes, sir, Mr. Chairman. Thank you very much for having us here. Thank you to all of you.

You know, I practice law at Nelson Mullins, but today I'm really here in a slightly different context as a board member of E⁴. I was the Chairman of SCCEBA before it was folded into E⁴, and so we've added the South Carolina component to E⁴. And Jeff and John will give you a bit more on that, after I introduce them. And they'll give you sort of the mission and purpose of E⁴. They'll get into all the details on that.

I'll just simply say that we are a two-state nonprofit headquartered in Charlotte, covering both South Carolina and North Carolina. And our

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mission, simply put, is to advance the energy economy, writ large, in the Carolinas. So that's kind of what we're about.

So the leadership – Bryan Stone, who is back here on the front row. Bryan, maybe wave to them?

MR. B. STONE [E⁴Carolinas]: [Indicating.]

MR. W. ADAMS [E⁴Carolinas]: – is my co-chair for the South Carolina task force of E⁴. Bryan is the President of Lockhart Power. He also, for a time, concurrently ran Ni America, the largest wastewater system in the State – had a dual job in that context – and now he's back to being the President of Lockhart Power alone. And Bryan and I basically run the South Carolina task force for E⁴.

Jeff Merrifield, immediately to my right, right here, is the global head of the energy practice at Pillsbury Winthrop Law Firm in Washington, DC. Jeff previously served on the US Nuclear Regulatory Commission; he was appointed to the Commission by both President Clinton and President Bush II. And Jeff lives in Davidson, North Carolina, and works up in Washington.

And then to Jeff's right is John Morrison. John has a 40-year career in the energy industry. He is the President and CEO of E⁴. He just joined

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us about three weeks ago and so is new in the saddle, but has more than a 40-year track record. He previously ran several solar developers, just has a long record. He also was the COO of Advanced Energy Corp., and was a research associate at Harvard Business School. John has engineering degrees from Yale and Stanford, and an MBA from Harvard Business School.

And so this is an impressive bunch, the folks that I brought here to introduce to you. And sort of what we're trying to do here is spread E⁴'s wings and make it an effective nonprofit across two states, helping advance the energy economy here.

I'm going to turn it over to our Board Chairman, Jeff Merrifield, and let him tell you the story.

HON. J. MERRIFIELD [E⁴Carolinas]: Mr. Chairman, Madam Vice – [indicating]. Mr. Chairman, Madam Vice Chair, and members of the Commission, thank you very much for allowing us to come before you today to talk a little bit about E⁴Carolinas and what we do.

Before I launch into E⁴, I'll just make a couple of notes to layer on top of what Weston has said. I come to you, obviously, as a former member

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1 of the Nuclear Regulatory Commission. I'm an
2 alumnus of NRUC and continue to do a variety of
3 activities with the Energy Committee.

4 Particularly, my role is the Pillsbury Law
5 chair of our practice. My specialty is nuclear law
6 and all that goes along with it. And we're the
7 oldest and the largest nuclear law practice in the
8 world.

9 As it relates to that, I also bring greetings
10 from David Wright, who's obviously familiar and a
11 former chairman of this Commission, who is
12 currently a member of the U.S. Nuclear Regulatory
13 Commission. David was also a former board member
14 on E⁴, so he was very familiar with the activities
15 and has frequently contributed to a number of the
16 conferences we've had since the time he was on the
17 Commission through now.

18 I thought, today, what I would do in our
19 presentation was begin a little bit by telling a
20 little bit of what we aren't, and then I'm going to
21 go into what we are and the history of that.

22 The what-we-aren't part is we are not a
23 lobbying organization; we are not a litigating
24 organization; and we are not an organization that
25 advocates for or against any piece of legislation.

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1 We're a 501(c)(6). We are educational in nature;
2 we're a membership-based organization. And our
3 focus for our group is workforce development,
4 building the energy economies of South Carolina and
5 North Carolina, and really working with economic
6 developers to bring more companies in the energy
7 arena to the two-state region. And we'll talk a
8 little bit more about that in the presentation.

9 The genesis of E⁴ actually harkens back to the
10 sort of mid-to-late 2000s. There was a predecessor
11 entity called Carolinas Nuclear Cluster. Much of
12 that was located and based out of Fort Mill. It
13 brought together a variety of nuclear-related
14 companies in North and South Carolina, and really
15 was a time when that was really burgeoning.

16 Beginning in, I think, around the 2011
17 timeframe, there was a recognition that there was
18 really something going on here in the two-state
19 region as it relates to companies involved in
20 supplying electricity, its components, and
21 workforce. As a result of that, a group of energy
22 leaders led by Jim Rogers, who was then the CEO of
23 Duke, came together and they kicked off a study
24 undertaken by McKenzie, which looked at the two-
25 state region, and the result of that was an

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1 identification that at that time there were
2 approximately 250 companies employing about 25,000
3 workers who were in that energy mix, in that
4 cluster.

5 Based on that information and that gathering,
6 it was decided that we would initiate the creation
7 of E⁴Carolinas as an energy association on behalf of
8 the two-state region, and I and a group of others
9 serve as the initial board of E⁴Carolinas, and over
10 the last three years I have served as its Chairman.

11 That group, which grew from one member – one
12 staff member and a handful of companies today
13 comprises a staff of, I believe, now, 12. We have
14 a substantial budget and our membership is
15 approaching 150 different companies. Now – I
16 should say a hundred different – 150 different
17 entities. In part, that is traditional utilities,
18 and I'll walk through some of those traditional
19 utilities; suppliers to the energy arena; but it
20 also includes educational institutions and a
21 variety of others.

22 Going to the presentation, focusing on who we
23 are, this really goes to Slide 3 –

24 [Reference: Presentation Slide 1]

25 – we really encompass the full breadth of

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1 technologies in the region, so it is nuclear,
2 renewables, traditional fossil energy, and a
3 variety of emerging technologies. We don't have
4 any fusion members yet. I do advise the Fusion
5 Energy Association in Washington on these matters;
6 we certainly hope to get fusion members down the
7 line.

8 [Reference: Presentation Slide 2-3]

9 That's a scenario where, for example, Savannah
10 River would maybe have an important part.

11 [Indicating.] Oh, I'm sorry. Okay, great,
12 thank you.

13 Educational institutions: University of South
14 Carolina, South Carolina State, and Clemson are
15 members, along with a group of other entities in
16 North Carolina.

17 Savannah River National Labs is a critical
18 member of our team because of the excellence that
19 they bring in energy research, and we are – as we
20 will talk in a little bit – continuing to reach out
21 to the capabilities that they bring.

22 Utilities: We have virtually every major
23 utility participant in the two-state region,
24 including a variety of energy cooperatives.

25 [Reference: Presentation Slide 4]

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1 Manufacturing, which is critically important
2 in the State of South Carolina, is a very important
3 element of the work that we do, and I'll mention
4 some of those companies going forward.

5 In terms of initiatives – and I think this, as
6 we walk through our presentation, I think this is
7 where we are putting a significant amount of our
8 efforts, are to alternative-fuel transportation,
9 and that really takes the strength of the South
10 Carolina automotive industry and combines that with
11 historic lithium and battery manufacturing
12 capabilities that are existent in North Carolina,
13 as well as some which are emerging, including
14 Toyota, and really move that into the region.

15 Hydrogen – and we'll talk in more detail about
16 that later – is a significant economic driver and
17 one in which there are opportunities for
18 significant transformation of the energy economy,
19 and we certainly are working very hard on that one.

20 Renewables: That is an area where this region
21 has been a leader in terms of solar. We see
22 significant opportunities down the line for wind,
23 and that is something I think the two states will
24 certainly be looking at, as well.

25 [Reference: Presentation Slide 5]

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1 I'm not going to go into a significant amount
2 of detail on this particular slide because,
3 obviously, you know this better than we do. I
4 would note, on the energy consumption – which is
5 the lower right-hand slide – many of the larger
6 consumables of energy in South Carolina today are
7 imported. Nuclear is obviously a component for
8 which most of that generation comes from the State.
9 Hydroelectric and biomass are important
10 contributors, as well. But we do see, as the
11 energy economy continues to grow, whether it is
12 renewables, whether it is addition of hydrogen, or,
13 potentially, advanced nuclear generation – which is
14 an exciting topic – all of these contribute to a
15 greater share of that actually, potentially, coming
16 from the State of South Carolina, itself.

17 [Reference: Presentation Slide 6]

18 I mentioned a little bit we have 140-plus
19 members and, as stated before, it is a mixture of
20 utilities, companies that are in the service
21 industry and manufacturing, universities, and
22 startups.

23 We also have various nongovernment
24 organizations, which both advocate for various
25 elements of energy, some which wouldn't necessarily

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1 be obvious. One of these we are very proud of, as
2 an organization, is, because we don't advocate for
3 or against specific pieces of legislation or for
4 specific rulemaking or other activities, we really
5 provide a safe space for conversations about where
6 the energy economy can go. It also gives us an
7 opportunity to interact amongst our members and
8 really try to grow business. That's on a business-
9 to-business basis, as well as I mentioned trying to
10 bring more of the nation's and international
11 nuclear economy into the two-state region.

12 [Reference: Presentation Slide 7]

13 This gives you a sense of some of our large
14 utility members, and, as I mentioned, this isn't
15 just large integrated utilities, but we have a
16 variety of cooperatives that play a very important
17 part in our group. We have 24 members of our board
18 and there are several members on that board that
19 are represented from the cooperatives. So we want
20 to make sure we have good diversity in that regard.

21 [Reference: Presentation Slide 8]

22 Going to service providers, this runs the
23 gamut. Some of these are companies which provide
24 the parts and pieces for utilities or other power
25 producers. Some of them are like the entities that

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1 Wes and I represent, which are law firms and other
2 consultants who work on behalf of those very same
3 partners. But it gives us a wide mix of elements.

4 [Reference: Presentation Slide 9]

5 In the manufacturing and EPCs, this has
6 historically been a very vital part of our group.
7 Obviously, manufacturing drives significant job
8 creation, and we are very much focused on the
9 notion of trying to enhance the level of job
10 creation in the two-state region.

11 Westinghouse, for example, which has its
12 international fuel operations not too far from
13 here, is obviously one of our – one of the members
14 who we've been trying to help expand those
15 operations into other areas. Similarly, Siemens
16 Energy, just across the border from Fort Mill, in
17 Charlotte, has had a major increase in the scope of
18 its operation that was particularly dedicated
19 toward combined-cycle operations. They are now
20 looking at expanding that potentially down the road
21 to things like advanced nuclear, and we are
22 certainly very supportive of those efforts, as
23 well.

24 I would note on that slide Honeywell, which is
25 on the middle right, is a major energy producer

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1 that just within the last several years has decided
2 to locate its international headquarters in
3 Charlotte. So as we see continued movement in both
4 South Carolina and North Carolina increasing their
5 population and being increasingly seen as desirable
6 places to locate, these also are big drivers for
7 large international corporations which are able to
8 attract the workforces to these regions.

9 [Reference: Presentation Slide 10]

10 Others that I list here: Toshiba; 8 Rivers,
11 which is an entity which is developing some clean-
12 energy technologies; a variety of different
13 companies out there. And we continually try to
14 expand and build on that, because we really do want
15 to represent the entire energy economy.

16 [Reference: Presentation Slide 11]

17 Educational institutions have always been a
18 key element of the work that we do. Both, as I
19 mentioned, University of South Carolina and Clemson
20 are members, along with their counterparts in North
21 Carolina.

22 I would note here, too, the Electric Power
23 Research Institute. This is the large research
24 entity on behalf of the electric generating
25 industry. It has one of its two major offices in

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1 the region – actually, the largest footprint of
2 EPRI is in the Charlotte region – and they provide
3 an important role not only for the electric
4 industry but, because of the global reach of their
5 activities, really allows E⁴ to plug into a variety
6 of different areas we otherwise would not be able
7 to do.

8 I think here I would pause. One of the things
9 that we've found, as an organization, is, because
10 we are represented by so many international
11 companies and our board is representative of a wide
12 variety of those same entities, we really are able
13 to look at things at an international and national
14 context that many state-based energy associations
15 are not able to do.

16 I would also note, given our decision to bring
17 SCCEBA into the E⁴ fold, E⁴ now represents the
18 largest energy association in the State of South
19 Carolina, and certainly our goal is to try to
20 continue to build on that, both for the South
21 Carolina economy and for our membership.

22 [Reference: Presentation Slide 12]

23 From a vision perspective, we really want to
24 be an energy innovator. We want to attract
25 companies who want to enhance economic development.

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1 We have a variety of task forces – and I’ll talk a
2 little bit more about that. And, then, research
3 and activities that we’re doing – and this will be
4 a conversation that John Morrison, our CEO, will
5 talk about – there are some very interesting future
6 growth areas for energy, all of which there’s a
7 strong connection with South Carolina and North
8 Carolina. And we certainly want to help position
9 our organization and our members to be leaders in
10 that work.

11 [Reference: Presentation Slide 13]

12 Finally, our task forces: We talked a little
13 bit about the South Carolina Clean Energy
14 Industries Task Force, that Weston and Bryan lead.
15 That has become an important element of
16 strengthening our activities here in the State. I
17 would note we do have offices located both on the
18 grounds of the University of South Carolina, as
19 well as at Clemson in Charleston, so we do have two
20 offices here.

21 We’ve historically focused significantly on
22 workforce development. We have an excellent
23 training program. The Office of Regulatory Staff
24 uses that for training a number of their members
25 in, really, an introductory way on the energy

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1 industry. We have a boot camp, that we call it,
2 and that has been an excellent relationship between
3 the two entities and their counterparts in the
4 State of North Carolina, as well.

5 We have a Communications Task Force. Policy
6 Task Force, and we do annual Washington fly-ins and
7 update our members; that is an activity we've had
8 significant interest and support by the two states,
9 very frequently have had members of the North
10 Carolina public utility commission participate in
11 that. We would certainly like to engineer that
12 program in a way it would be comfortable for
13 members of this Commission to participate, as well,
14 but happy to talk about that in the question-and-
15 answer period.

16 Finally, I'll make one point and then turn it
17 to John. Our real focus in the time that I have
18 been Chairman is really focusing on the issue of
19 economic development. And we list there four key
20 areas where we believe there are some real defining
21 capabilities for the South and North Carolina
22 region, the first being alternative-fuel vehicles;
23 the second being the green hydrogen economy; third
24 being grid hardware and energy storage. And one
25 which isn't listed there is advanced nuclear

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1 reactor technologies. We really do believe the
2 base we already have in that arena will allow this
3 region to really take a leadership role. And I'll
4 let John tease that one out some more.

5 So, with that, I'll turn it over to John
6 Morrison, our Chairman – our CEO and President.
7 Thank you.

8 **MR. J. MORRISON [E⁴Carolinas]:** Jeff, thank
9 you.

10 Good morning. Thank you very much for your
11 time. We appreciate the opportunity to share with
12 you about E⁴Carolinas.

13 If we can go back to – yeah – the slides?
14 Thank you.

15 [Reference: Presentation Slide 14]

16 In addition to the task force work that is
17 organized by our members and led by various members
18 of our board, we have a number of research
19 activities; and as Jeff alluded to, most of them
20 are research that is driving towards economic
21 development, understanding the industry that we
22 have here and the opportunities for growing the
23 energy economy in both South and North Carolina.

24 Most of these are federal grants that we've
25 received to do that work. The first is one on

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1 alternative-fuel vehicles, looking at resilience
2 and storm response. The project basically is
3 mapping alternative-fuel resources around the
4 State, both electric and other sources of fuel, so
5 that in the event of emergency those folks who are
6 coordinating the response know where the resources
7 are and can direct responders to those resources.

8 That project will be wrapping up later this
9 year, and so we will be working with the various
10 emergency response, and it is in both North
11 Carolina and South Carolina, to share that
12 knowledge and information with them.

13 The second project – again, funded from the
14 Department of Energy – is an energy hardware
15 cluster. This is an accelerator that works with
16 small startup companies and basically helps them
17 develop a business plan's funding and necessary
18 growth. So it's really an incubator to get small
19 companies up and going, and that has recently just
20 started, so we don't have any graduates, yet, of
21 the program, but I think it's a very interesting
22 collection of companies that are participating in
23 that.

24 The third area is a green hydrogen effort that
25 we have going. The grant is to – we'll be wrapping

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1 up this year – is to inventory all the green
2 hydrogen activity that's occurring in both states,
3 in South Carolina and North Carolina. Following
4 onto that will be a really exciting opportunity,
5 which is the Southeast Hydrogen Energy Alliance, an
6 alliance of companies – Savannah Lab and others –
7 to promote the development of the hydrogen economy.

8 We had a call – I guess it was last week – in
9 which we put together and had over 250 participants
10 representing industries and associations and
11 organizations from a five-state region here. The
12 intent of that is to go after some of the funding
13 that's coming out of the Infrastructure Investment
14 and Jobs Act. DOE has about \$8 billion that they
15 expect to be funding at least four and maybe as
16 many as eight hydrogen research hubs.

17 **CHAIRMAN J. WILLIAMS:** Mr. Morrison?

18 **MR. J. MORRISON [E⁴Carolinas]:** Yes.

19 **CHAIRMAN J. WILLIAMS:** I hate to interrupt
20 you, sir, but if you could move your microphone –

21 **MR. J. MORRISON [E⁴Carolinas]:** A little
22 closer?

23 **CHAIRMAN J. WILLIAMS:** – closer to you? Yes,
24 sir.

25 **MR. J. MORRISON [E⁴Carolinas]:** Thank you. I

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1 appreciate that. Thank you.

2 We will be putting together that proposal for
3 DOE and would hope to be able to put the Southeast
4 in a very leading role in the hydrogen economy,
5 something that we see as vital to where our energy
6 industry is going.

7 HON. J. MERRIFIELD [E⁴Carolinas]: Just to add
8 briefly to that, that \$8 billion is with the
9 intention of having at least four hubs – more
10 likely, it's going to be in the six to eight region
11 nationally – for the hydrogen economy. And I think
12 what we're seeing in the group that John and others
13 have put together is this region is very well
14 placed in things like transportation, whether it's
15 roadways, the port facilities in the two states, in
16 particular, and in some of the pipeline networks
17 that are available, among other really key elements
18 in building that out. So we think that's going to
19 be a tremendous opportunity for the two-state
20 region and our counterparts in Virginia, Tennessee,
21 and Georgia. And we'll be working, hopefully, to
22 identify a large contract organization that is in
23 the position to run a multibillion-dollar contract,
24 because we think, from a resource standpoint, we've
25 got a very appealing grouping of entities in that

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1 regard.

2 MR. J. MORRISON [E⁴Carolinas]: Yeah. So
3 that's definitely one to stay tuned.

4 [Reference: Presentation Slide 15]

5 The next slide is a grant that we're working
6 on, on the advanced nuclear technology arena.
7 This, like the hydrogen one, is basically an
8 inventorying and tracking of what's happening in
9 that industry, who the players are, what are the
10 projects that are coming down the pike. It
11 really – and this one is for the Department of
12 Commerce – it really is a case of the basic
13 information that we need if we're going to do
14 economic development.

15 The Carolinas is historically strong in this.
16 Jeff mentioned that the origins of this
17 organization really was within a nuclear cluster.
18 The reason for that is that we have probably the
19 biggest cluster of companies involved in the
20 nuclear industry here in North and South Carolina.

21 I don't know if you've been following it, but
22 there's a lot of exciting developments around small
23 modular reactors, and that's a lot of what the work
24 here is doing, and saying, you know, "How do we
25 grow that economy? How do we help the companies

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1 that are doing that, and help move that technology
2 forward?"

3 [Reference: Presentation Slide 16]

4 The last two grants that we have are slightly
5 different. They're not federal grants; they come
6 from other sources. The first is the Carolinas
7 HBCU Energy Leadership Pathway. This is a grant
8 that we – well, it's a program that we started with
9 a volunteer advisory board in 2020, and it has now
10 been funded with a grant from the Duke Energy
11 Foundation and piloting with four HBCUs –
12 historically black colleges and universities – two
13 in South Carolina and two in North Carolina. The
14 two in South Carolina are South Carolina State
15 University and Bennett College.

16 The purpose and objective of that project is
17 to introduce students at these schools to the
18 energy industry and to encourage them to consider
19 careers, and as they get into those careers to help
20 them develop the necessary leadership skills to do
21 that. It's a nice complement and with the
22 leadership development that we already do in the
23 industry.

24 It is a case that the energy industry is not
25 very diverse, which is why this program was

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1 started. It came about from some conversations
2 that we had during one of the policy visits to DC
3 several years ago, in the office of Representative
4 Clyburn, who basically asked, "What are you doing
5 with HBCUs in the energy arena?" and sort of issued
6 the challenge. And so, Jeff was there at that, and
7 my predecessor, and they came back and said, "We're
8 to put this program together, so, assembled that
9 advisory board and put it on.

10 We just, first of this month, two days ago,
11 brought on board the director for that program, and
12 so this spring, this semester, we'll be interacting
13 with students for the first time and enrolling them
14 in that program, and look to have great results
15 from that.

16 The pilot, as I said, is with four schools.
17 Our intention is to eventually expand that to all
18 of the HBCUs in both North and South Carolina. The
19 two states probably have more HBCUs than anywhere
20 else in the nation. And, eventually, we think we
21 will have a model that we can expand elsewhere
22 nationally, as well. And as I said, the objective
23 here is to really encourage students at these
24 schools to go into the energy industry, an industry
25 that hasn't really been well represented in that

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1 regard.

2 And the last grant is a project that we're
3 doing, really, around public education, helping
4 people understand the energy industry, where our
5 electricity comes from, and how our utilities
6 operate. It was a project that we're doing on
7 behalf of Duke Energy. Duke wanted a, you know,
8 unbiased party to present these and put these
9 together, and serve as a real educational resource.
10 That will be wrapping up. We'll be finishing that
11 up this spring. And so probably this summer, you
12 know, second quarter in all likelihood, those will
13 be going live and providing a resource for people
14 who want to get more information about just where
15 does our electricity come from? How do we, indeed,
16 keep the lights on, and all that goes on behind
17 that?

18 [Reference: Presentation Slide 17]

19 Those are the research activities you've
20 heard, task forces, and the like. We certainly
21 will welcome any questions or comments that you-all
22 have.

23 **CHAIRMAN J. WILLIAMS:** Thank you, gentlemen,
24 for presenting, and Ms. Loomis, for being here with
25 us today.

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1 A couple of things I want to say and then I
2 will open the floor to my colleagues.

3 First, I want to thank you-all for being
4 responsive to Congressman Clyburn's question.
5 Actions speak louder than words, and so I'm
6 impressed that you-all – not that you wouldn't, but
7 it's just good to see a presentation where an
8 initiative like the Carolinas HBCU Energy
9 Leadership Pathway is already in the works and is
10 up and running, as opposed to aspirations. So
11 thank you for that. I appreciate that.

12 The next thing is a question: What, if
13 anything, can the PSC do to bring more businesses
14 to South Carolina?

15 HON. J. MERRIFIELD [E⁴Carolinas]: Well, Mr.
16 Chairman, let me take the first crack at that.
17 First of all, thank you very much for the comment
18 that you made. I was there when we had that
19 meeting in Mr. Clyburn's office, and I have to say,
20 when he asked the question, "What are you doing
21 with the HBCUs?" I had to sheepishly say, "At one
22 point we had one of them as a member. And not all
23 that much." And, you know, the question coming
24 from that office was: "You-all have a problem with
25 finding African-Americans in your workforce, don't

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1 you?” And the answer is yes. “What are you doing
2 about it?” So we made a commitment we were going
3 to – you know, I didn’t want to have to answer that
4 question again and not be in a position to say we
5 are actively engaged in trying to make a change
6 there.

7 **MR. W. ADAMS [E⁴Carolinas]:** And, Mr. Chairman,
8 I’ll just add: Jeff is being modest. That was
9 entirely his idea, so he gets full credit for that.

10 **HON. J. MERRIFIELD [E⁴Carolinas]:** The
11 important part – and thank you, Weston, for that.

12 **MR. W. ADAMS [E⁴Carolinas]:** Absolutely.

13 **HON. J. MERRIFIELD [E⁴Carolinas]:** The
14 important part is we’re able to take a framework of
15 training we already have, and work – and the
16 leaders on this are really leaders of those HBCU
17 institutions – come up with something that’s going
18 to work for them and where we can make a commitment
19 to helping that occur. And it’s going to help our
20 members because we want to create – our members
21 are – we have 40 members that are already signed up
22 to this program because they want to be
23 participants. There is an urgent need to have more
24 individuals – African-American community, frankly,
25 Hispanic community, and others – involved in our

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1 workforce. And so we want something that's
2 actionable; we want something that is deployable,
3 not only in the Carolinas, but our vision – and
4 we've already had initial conversations with the
5 Department of Energy and others – is for this
6 really to be a model program, for South Carolina
7 and North Carolina to really lead the way
8 nationally for creating that STEM-based pipeline
9 for a more diverse energy workforce, and we want
10 that to happen here first.

11 So thank you for that, allowing us to say a
12 bit more about that question.

13 In terms of what the PUC can do, you know, I
14 think we are very sensitive to the fact, because of
15 the statutory requirements placed on the
16 institution, you have, you know, a lot of limits on
17 what you can do. The one area that I think we
18 would love to see a way to make it work is to
19 engender more of a conversation with you and your
20 counterparts in North Carolina at some of our
21 summits, to talk a little bit about your role and
22 your vision. Obviously, want to do that in a way
23 that's consistent with South Carolina law, and
24 comfortable with the attorneys with whom you work
25 to make that happen. So I think that's an area

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1 where additional engagement there would be really
2 helpful.

3 I think, too, this kind of a discussion – we
4 hope this isn't the last. We'd like to be in a
5 position to come to you in the future, whether it's
6 a year or two years from now, and update you in
7 terms of the progress that we're making in terms of
8 helping to build the South Carolina and North
9 Carolina energy economy.

10 And I think, finally, we want to be a
11 resource. Because we have an ability to tie into
12 significant information about the development of
13 these advanced technologies – advanced nuclear,
14 fusion, hydrogen, advanced forms of renewable
15 energy – we have some very good understanding of
16 where those are going and want to serve as a
17 resource if that will help you in the decision-
18 making that you need to do.

19 Thank you.

20 **CHAIRMAN J. WILLIAMS:** Thank you, sir.

21 Attorney Adams, did you have –

22 **MR. W. ADAMS [E⁴Carolinas]:** No, sir, Mr.
23 Chairman. I think he covered it well.

24 **CHAIRMAN J. WILLIAMS:** All right. Thank you,
25 Mr. Merrifield. I will say that it's not without

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1 good cause, but this is the most restrictive
2 organization that I have ever been a part of. And
3 so, hopefully, we can work together in some way,
4 shape, or form to identify opportunities to have
5 conversations that are congruent with the law. So,
6 thank you for acknowledging that.

7 HON. J. MERRIFIELD [E⁴Carolinas]: Thank you.

8 CHAIRMAN J. WILLIAMS: Commissioners.

9 COMMISSIONER THOMAS: Mr. Chairman?

10 CHAIRMAN J. WILLIAMS: Commissioner Thomas.

11 COMMISSIONER THOMAS: Thank you.

12 I appreciate this. This has been very
13 informative.

14 I was looking at page four, and on the right-
15 hand side there's the comment that says the world's
16 most advanced wind-turbine drive-train testing
17 facility. That just sounds interesting to me. I
18 wondered if there's anything else that you can tell
19 us about that.

20 HON. J. MERRIFIELD [E⁴Carolinas]: Well, that
21 is a facility that's in Charleston. It's on the
22 Clemson campus. It is the most innovative facility
23 available. One of the things which is noteworthy
24 about it, because it's located adjacent to a large
25 deep-water port, very large wind-turbine machinery

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1 can be brought in off the water. And, of course,
2 as you may know, offshore wind turbines are
3 massive, 5 to 7 megawatt size facilities, so that
4 the nacelle pods on those are very, very large.
5 And they can be brought into that facility and
6 tested by the team at Clemson. It is a world-class
7 facility of which South Carolina should be very
8 proud.

9 COMMISSIONER THOMAS: Okay.

10 HON. J. MERRIFIELD [E⁴Carolinas]: I'm sure
11 they would be more than happy to take you – I'm
12 sure Clemson would be more than happy to take you
13 on a tour of it.

14 MR. J. MORRISON [E⁴Carolinas]: And I would add
15 I think this is one area where South Carolina has a
16 very distinct competitive advantage, which is in
17 the arena of offshore wind.

18 The industry built massive things – wind
19 turbines, you know, steel towers, the nacelles that
20 Jeff referenced – all of which have to be
21 transported by water. They can't be transported
22 overland; they're just too big. And so with the
23 ports that South Carolina has and the manufacturing
24 capabilities that South Carolina has, I think it's
25 well-positioned not just for facilities located –

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1 you know, generation facilities – located in South
2 Carolina waters, but up and down the entire East
3 Coast and to the Gulf. These things are readily
4 transported; once you get it on a barge, you can
5 move it many places. And so I think this is an
6 area that South Carolina, I think, has a very
7 distinct advantage.

8 **HON. J. MERRIFIELD [E⁴Carolinas]:** Yeah, I
9 would just say, you know, we hear a lot about a lot
10 of solar panels coming in from China. But we're
11 also – and I know you-all are proud of the fact
12 that South Carolina has lots and lots of BMWs that
13 are being shipped to China. And so there is a real
14 opportunity here for a large manufacturing base for
15 the wind energy arena to be hosted here in South
16 Carolina, some parts of North Carolina as well, and
17 shipped, as John has mentioned, not just within the
18 United States but internationally. That is a real
19 large economic opportunity for this State, and
20 hopefully we can help assist in making that happen.

21 **COMMISSIONER THOMAS:** Okay. And, so, I had
22 another question on page 14, the green hydrogen.
23 And you've got the map there with all of the blue
24 dots. Can you give me an idea of what the blue
25 dots represent?

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1 **MR. J. MORRISON [E⁴Carolinas]:** That is part of
2 the inventory –

3 [Reference: Presentation Slide 14]

4 – that this project has done, in terms of
5 identifying companies that are participating in the
6 green hydrogen industry and the supply chain for
7 that. And so this is a preliminary look at what
8 exists here in this – in the five-state region.
9 And again, as I mentioned, there are a lot of
10 companies doing a lot of things here. It was eye-
11 opening to me, as we got into this project, to
12 understand exactly how much is going on here. But
13 I think it positions the Southeast very, very well
14 for one of these grants, and obviously then
15 building the industry out as hydrogen becomes much
16 more central to our energy story.

17 **HON. J. MERRIFIELD [E⁴Carolinas]:** Let me add a
18 little bit to that. And I think there are sort of
19 two buckets that I talk about. The first one is a
20 production standpoint. Today the US Department of
21 Energy is giving out a series of grants to a
22 variety of US nuclear utilities that are taking
23 off-peak power and intend to generate hydrogen in
24 their areas. These have been received by Arizona
25 Public Service; Exelon, based in Illinois; Xcel

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1 Energy, in Minnesota; and there's also a project
2 out in Ohio, with FirstEnergy. There are a number
3 of other recyclable – renewable companies that are
4 looking at green energy, as well. And green energy
5 hydrogen is really, from our lexicon, noncarbon-
6 based generation of hydrogen, and so when it's
7 solar, nuclear, hydro, all of which can produce
8 that green hydrogen.

9 What does it mean for the energy economy in
10 the State? Well, one of the things that's being
11 looked at very closely is the use of adding
12 hydrogen in limited amounts – and this could be 10-
13 15 percent – into the existing natural gas pipeline
14 network for either home consumption or use by
15 industry for power production purposes. Many of
16 the large turbine manufacturers – Siemens, GE,
17 Alstom, among others – are looking at alternatives
18 where you could have direct-burn hydrogen for
19 energy production.

20 Hydrogen is also useful for things like marine
21 transportation. This is very relevant, obviously,
22 to South Carolina. There are test ships right now,
23 near-shore. Hydrogen gets a little complicated
24 because of the bulk-size tanks you have to have to
25 utilize it. So, that hydrogen – direct hydrogen is

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1 more of a near-shore opportunity. We looked at
2 this in a paper that Pillsbury conducted with the
3 Clean Air Task Force recently. An exciting area is
4 actually ammonia. You can use the hydrogen and the
5 molecules of the hydrogen to transform that into
6 ammonia. Ammonia can actually be used as a dual
7 fuel for long-range transportation – long-range
8 marine carriers, so bulk cargo carriers, roll-
9 on/roll-off, systems such as this, could be
10 converted. And there are several companies in
11 Europe that are building dual-fuel, large marine
12 ships that can use both traditional bunker fuel, as
13 well as ammonia for having that propulsion.

14 So there is a real opportunity here in South
15 Carolina, because of the port system, to
16 potentially link into that part of the hydrogen
17 economy. So a lot of different areas that are
18 developing and a significant amount of government
19 funding, as mentioned before, available to try to
20 transform us to that green-based energy.

21 **COMMISSIONER THOMAS:** Okay. I have one more
22 question, and this one relates to page 15. And you
23 mentioned the small modular reactors, and I guess I
24 had two questions along those lines. One, what's
25 going on in South Carolina or, well, the Carolinas;

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1 as well as the other question that I have in my
2 mind, and you started mentioning the ports, and,
3 personally, I thought about the nuclear-powered
4 submarines and ships and all of that stuff that
5 used to go in and out of Charleston all the time.
6 But is there any relationship to those sorts of
7 reactors and anything that, I don't know, that's
8 being worked on with the small modular, or
9 whatever? I just don't even really know enough to
10 ask the intelligent question, but –

11 HON. J. MERRIFIELD [E⁴Carolinas]: Well –

12 COMMISSIONER THOMAS: – that's where I'm
13 coming from.

14 HON. J. MERRIFIELD [E⁴Carolinas]: Yeah, let me
15 jump on that one. In addition to the role I serve
16 on E⁴, I also am on the board and chair the Advanced
17 Reactor Task Force for something called the Nuclear
18 Energy Council, which is one of the two largest
19 nuclear entities in Washington, and I spend a lot
20 of time on this topic. In fact, I've given three
21 different presentations to various of the NARUC
22 committees and subcommittees, particularly in
23 electricity, to talk about advanced nuclear. I'm
24 happy to come back at a later meeting and go into
25 this in more depth, if you're interested. I've

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1 done so for the State of North Carolina.

2 But, in sum, these reactors generally range
3 from micro-reactors of about 1½ megawatts to about
4 the 300 megawatt size, and there are a variety of
5 different designs using high-temperature gas,
6 molten salt fast reactors. There is significant
7 DOE funding – and when I say “significant” it is in
8 the billions of dollars that has been put into
9 developing a variety of these technologies. There
10 are initial plants that have been – for which
11 funding has been received, to be placed in Wyoming,
12 and that would be TerraPower, and that is a
13 facility that’s actually transformed from a former
14 coal plant; X-energy, which is building a plant
15 with Energy Northwest, and that is a high-
16 temperature gas reactor; and then NuScale, which is
17 actually a smaller light-water reactor more akin to
18 the current fleet of reactors, that will be built
19 by UAMPS, up in Idaho.

20 So there are a variety of technologies that
21 are being assessed. There’s been an announcement
22 recently they’re going to have a micro-reactor
23 being placed in Alaska. So a lot of – a lot of
24 things going on in the area, and one that I think
25 this is worthy of the PUC being more aware of and

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1 following.

2 From a maritime perspective, our fleet of
3 carriers and submarines is made up totally of
4 nuclear power plants. There are about 100 in the
5 US Navy fleet. We had – the US had the original
6 advanced – we had the original small modular
7 reactor. It actually powered McMurdo Sound in
8 Antarctica for about 20 years. So this is really
9 not that new. There are some folks looking at
10 potentially barge-mounted small modular reactors,
11 so there is a tie-in to some of that former US Navy
12 activity.

13 So, a lot of things going on, a lot more than
14 I can say. But suffice to say it's a very active
15 area; significant bipartisan support in Washington
16 for advanced nuclear, and we'd be happy to come
17 back and brief you in more depth, if you'd like.

18 **MR. J. MORRISON [E⁴Carolinas]:** And an example,
19 you know, here close to home, is one of the
20 companies that's a member of E⁴Carolinas, a startup,
21 that is looking at a very innovative technology to
22 take waste fuel – you-all know that we have quite a
23 bit of it sitting in refueling pools and dry casks
24 at many of the reactors here in the Carolinas, but
25 taking that fuel and reprocessing it in a manner

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1 that makes it suitable for the molten salt reactors
2 that are being in development. That particular
3 company is applying for a grant from the Small
4 Business Innovation Research funding. But they're
5 going to use Savannah River to do that initial
6 testing. They obviously have the facilities at the
7 National Lab there to do that.

8 And so that's an example, I think, of some of
9 the stuff that's here close to home, but also just
10 some of the really innovative thinking that's
11 occurring, taking what has been this waste and a
12 problem to be dealt with, and turning it into
13 something that has a value and use.

14 HON. J. MERRIFIELD [E⁴Carolinas]: Yeah, and I
15 apologize; I missed that part of the question.
16 John, thank you for adding there.

17 We have several other developers – Kairos
18 Power, which has a molten-salt pebble bed reactor
19 that they are – they've got an office in the
20 region. TrustWell Energy just located its
21 international headquarters; that's a molten salt
22 technology. That's going to be located in – the
23 international headquarters is located here in the
24 region. NuScale, which is the first company to
25 receive a license for its small modular reactor

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1 technologies from the NRC, they have an office in
2 the region.

3 So we are seeing a number of companies that
4 are locating operations in the two-state region
5 because they really want to tie into the ecosystem
6 that we've created in this area, and we think this
7 is an area of real potential growth.

8 **COMMISSIONER THOMAS:** Thank you. I appreciate
9 that. That's all I have.

10 **CHAIRMAN J. WILLIAMS:** Commissioner Caston.

11 **COMMISSIONER CASTON:** Actually, on that Slide
12 15, I had a question, too. You talk about creating
13 a planned project. I guess this commerce grant
14 will create a plan. Is this primarily funding just
15 a study to look into the – could you elaborate on
16 that?

17 **MR. J. MORRISON [E⁴Carolinas]:** Certainly, yes.
18 It's basically an effort to look at the supply
19 chain and the industry that exists here. And so it
20 is a study; we're not talking hardware, we're not
21 talking building anything at this point. But it's
22 sort of the foundational information that will let
23 folks at the Department of Commerce – presumably,
24 folks at DOE and the like – get a better
25 understanding of where the industry is, what the

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1 current assets are, and essentially who's doing
2 what.

3 Now, we also anticipate using it with our
4 State Departments of Commerce and the local
5 economic development boards to say, "Listen, you
6 already have a network here." As they're doing
7 their recruiting of new industry, they may be out
8 talking to companies, we can help then make the
9 introductions. If you're talking to someone who
10 has part of the supply chain for nuclear reactors,
11 you know, we can put them in touch with players
12 that are here, because we have that database, we
13 have that information.

14 So, really, that's why we focus on the
15 economic development. It really is a case of this
16 is fundamental information that allows us to make
17 connections and help build the industry.

18 HON. J. MERRIFIELD [E⁴Carolinas]: Yeah, this
19 particular study does go beyond North and South
20 Carolina. It is incorporative of Virginia,
21 Tennessee, and Georgia. But it also focuses on the
22 notion that this, in order to really enable these
23 advanced reactor technologies to deploy, we're
24 going to need to bring in more supply participants
25 and really rebuild – build and rebuild – that

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1 network to have the capability for producing the
2 components and technologies needed to advance these
3 designs.

4 We really – having this inventory is going to
5 make it very helpful for, whether it's the South
6 Carolina Department of Commerce or others, to
7 approach those technology developers and say, you
8 know, "You want to build your reactor design.
9 Let's explain to you the capabilities and resources
10 and support we have here in South Carolina to
11 really enable your technologies to move forward
12 quickly." So it's going to be a great – you know,
13 it's an inventory that has a multiplicity of
14 purposes; but from a state standpoint, focusing on
15 South Carolina, it will really provide a tool for
16 the State to be a more effective advocate of why
17 companies should be located here and pursuing these
18 technologies.

19 **MR. J. MORRISON [E⁴Carolinas]:** And I'll just
20 add, this afternoon we're going to sit down with
21 the folks at Commerce and share that with them.

22 **COMMISSIONER CASTON:** Well, you answered all
23 the questions before I could ask them, so – so,
24 thank you very much for your presentation.

25 **CHAIRMAN J. WILLIAMS:** Commissioner Powers.

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1 **COMMISSIONER POWERS:** Thank you, Mr. Chairman.

2 And thank all y'all for being here today. The
3 rapid change that's happening with electric
4 vehicles, and as that relates to your outreach
5 program, what are the challenges you see
6 particularly in the rural areas, in both the idea
7 of electric vehicles, the practicality, and
8 charging stations and all that? Is that something
9 that's part of some of your work or discussions?

10 **MR. J. MORRISON [E⁴Carolinas]:** It's an issue.
11 I don't know that we've gotten into that
12 specificity, in terms of that. But as we look at
13 alternative-fuel vehicles – and we use that term to
14 be a lot more encompassing of the wide variety of
15 alternatives that we have that can be lower carbon,
16 in terms of vehicles – electricity I think is an
17 important one that obviously works in areas where
18 you have sufficient density and have the
19 infrastructure for charging. In rural areas, you
20 know, I would hazard a guess that what we're going
21 to see is other forms of alternative fuels, be
22 they – in all likelihood – hydrogen based, Jeff
23 mentioned ammonia as one way to do it. Those of
24 you that are familiar with farming, you know that
25 farmers routinely handle and use ammonia as part of

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1 their fertilizing practices, and so it's a
2 technology that I think is very familiar to them.

3 The other area is in heavy-duty vehicles, as
4 well. That probably won't be electric. There's
5 just too much energy that's needed to do that, and
6 so some of these other alternatives that we're
7 looking at, I think will come into play there.

8 I hope we don't fall into the trap of saying
9 it's going to be all electric and only electric.
10 That won't serve all of our needs.

11 **HON. J. MERRIFIELD [E⁴Carolinas]:** Yeah, I
12 fully agree with John's comment on that. I would
13 note, you know – and we don't have the answer to
14 this yet – I think a lot of that is currently in
15 process. And so, you know, we don't know – none of
16 us knows at this point what's going to happen with
17 Congress and what element of an infrastructure bill
18 could or may get through.

19 I would say one piece that does have strong
20 bipartisan support, including Senator Manchin of
21 West Virginia, is the clean energy piece, and that
22 does incorporate within it a significant amount of
23 money for charging stations and building up some of
24 that electric vehicle infrastructure. I think from
25 our standpoint the two states should get their fair

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1 share of that money. Certainly, we'd do anything
2 on our part to help the delegation in that regard.
3 And I think that all plays into a variety of the
4 different work we've described today where we know
5 there are a variety of businesses in the two states
6 which are part of that network – from the
7 equipment, in terms of the batteries, in terms of
8 the hydrogen, in terms of the vehicle
9 manufacturing. We want to make sure that we bring
10 all of those together under our umbrella and really
11 enable a maximum utilization of these technologies
12 within economic and other sensibilities in a way
13 that will help get us to a cleaner economy but done
14 so in a way that's not overly expensive for the
15 users who ultimately have to drive those vehicles.

16 **COMMISSIONER POWERS:** Thank you, very much.

17 Thank you, Mr. Chairman.

18 **CHAIRMAN J. WILLIAMS:** Absolutely, sir.

19 Are there any more questions for the panel?

20 **COMMISSIONER C. WILLIAMS:** Chairman Williams.

21 **CHAIRMAN J. WILLIAMS:** Commissioner Williams,
22 you have the floor, ma'am.

23 **COMMISSIONER C. WILLIAMS:** Thank you.

24 Thank you-all for being here. This has been
25 fascinating, and I think you've opened some doors

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1 and you've reaffirmed some information that we may
2 have known and, so, I really appreciate it.

3 My first question has to do with your
4 membership. And one of the logos that I saw made
5 me wonder, why Southern Company?

6 HON. J. MERRIFIELD [E⁴Carolinas]: Southern
7 Company – and I'm forgetting, and John will help me
8 with this.

9 COMMISSIONER C. WILLIAMS: Southern Power.

10 HON. J. MERRIFIELD [E⁴Carolinas]: Southern
11 Company –

12 COMMISSIONER C. WILLIAMS: And it really is
13 Southern Power, so maybe I've mixed up who we're
14 talking about.

15 HON. J. MERRIFIELD [E⁴Carolinas]: Southern –
16 and I forget; I think it's Southern Power –
17 purchased a entity in the Research Triangle area
18 that was involved in supply of various components
19 to the energy industry. And that was the original
20 nexus behind that membership.

21 It's also really reflective that Southern is
22 an important provider of energy in the State of
23 North Carolina. They have an open-market
24 subsidiary that operates a large combined-cycle
25 unit in Statesville, North Carolina, which is

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1 north –

2 COMMISSIONER C. WILLIAMS: Okay.

3 HON. J. MERRIFIELD [E⁴Carolinas]: – of
4 Charlotte. My company's EnergyUnited, which is one
5 of our members. EnergyUnited receives the majority
6 of their power from that combined-cycle –

7 COMMISSIONER C. WILLIAMS: Okay.

8 HON. J. MERRIFIELD [E⁴Carolinas]: – unit, so
9 in my personal instance, Southern is supplying the
10 power in my house. So it was a natural nexus and I
11 think an extension of the fact that we are looking
12 beyond just the borders of the two states, in terms
13 of trying to build relationships. You know, a
14 river doesn't define an area and, obviously, the
15 things that happen, you know, across the Savannah
16 River also impact this two-state region, as well.
17 So we very much were embracing, as were they, in
18 being part of our network. We hope Tennessee
19 Valley Authority thinks similarly and we'll be
20 having them join at some point, hopefully, as well.

21 COMMISSIONER C. WILLIAMS: Nice. Glad I
22 asked. On page 14, where you talk about the
23 resilience for alternative-fuel vehicles, and I
24 think you mentioned that that grant work was coming
25 to a conclusion. And would you talk some more

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1 about that mapping effort and who might be able to
2 use it from a resilience perspective? I think it
3 ties in a little bit to Commissioner Powers'
4 question in terms of rural areas, but just curious
5 what we might get at this stage in terms of
6 information. Not "we" as in the Public Service
7 Commission, but just the community.

8 MR. J. MORRISON [E⁴Carolinas]: The community,
9 and actually it will be with a lot of the disaster
10 response agencies in both states.

11 COMMISSIONER C. WILLIAMS: Okay.

12 MR. J. MORRISON [E⁴Carolinas]: That's the
13 intent of this project. There's a three-year
14 project; we're now in the third budget year for
15 that project, and the tasks that remain to be done
16 are to take the data and information that's been
17 compiled, give it – provide it to those various
18 entities. We'll be pulling some workshops
19 together; we'll actually be running some, you know,
20 sort of test emergencies, you know, to make sure
21 that they understand how to access the information,
22 how to get it.

23 So it involves the utilities, because
24 obviously a lot of storm-response activity, you
25 know, fire departments. All the first responders:

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1 public safety and the like. So, at this point, we
2 haven't scheduled those workshops, and so I'm not
3 sure who actually will respond to our invitation to
4 participate, but that's who the audience is for it.

5 **HON. J. MERRIFIELD [E⁴Carolinas]:** Yeah, I
6 would note, you know, three years ago we hadn't
7 received any grants. This has been a major area of
8 focus in our economic reach. And we were able to
9 receive that one in no small part because of the
10 importance that resiliency has to the two states
11 and the degree to which we are affected by large
12 storms, particularly hurricanes. And so this was
13 really seen as an effort to build out and build in
14 more of that resilience into the system and
15 accommodate the fact that we do see a growing
16 infrastructure of alternative-fuel vehicles,
17 including but not limited to electric vehicles.

18 **COMMISSIONER C. WILLIAMS:** Will gaps be
19 identified and recommendations for what we might do
20 going forward?

21 **MR. J. MORRISON [E⁴Carolinas]:** I mean,
22 certainly the tool that we're developing will be
23 very easy to see those gaps. The deliverables that
24 we have for the project don't include those
25 recommendations. My guess is that the entities

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1 that we share the information with may then choose
2 to figure out how to fill those gaps.

3 HON. J. MERRIFIELD [E⁴Carolinas]: Well, you
4 know, yes. We're going to be basically providing
5 the data that shows the existing framework.

6 COMMISSIONER C. WILLIAMS: Uh-huh?

7 HON. J. MERRIFIELD [E⁴Carolinas]: It may be –
8 you know, there's always a potential for follow-on
9 activities that we could do as an organization that
10 would say, "How would one go about filling some of
11 those gaps?" You make – you made an excellent
12 point. That's certainly something we'll look at.

13 COMMISSIONER C. WILLIAMS: And, finally, there
14 has been a lot of discussion, and I think Chairman
15 Williams may have kicked it off, and you-all may –
16 with his question about what we can do, but you've
17 also identified a connection with NARUC. And so I
18 just really want to tell you that NARUC is looking
19 at doing an innovation webinar coming up this year,
20 and you may – that is a way that, you know, we can
21 communicate without – you know, outside of this
22 kind of environment. And they reached out asking
23 about, actually, the wind simulator. And so, you
24 know, it could be a nice synergy.

25 Thank you for the good work that you do with

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1 regard to, you know, kind of looking out for
2 commercial opportunities in the State. Appreciate
3 you being here.

4 HON. J. MERRIFIELD [E⁴Carolinas]: Thank you
5 very much.

6 COMMISSIONER C. WILLIAMS: No further
7 questions.

8 CHAIRMAN J. WILLIAMS: Thank you, Commissioner
9 Williams.

10 Colleagues, any more questions for the panel?

11 [No response]

12 All right. Anything from the Office of
13 Regulatory Staff?

14 MR. HUBER: No, Mr. Chairman.

15 MS. RICHARDSON: Commissioner Ervin is trying
16 to say something.

17 CHAIRMAN J. WILLIAMS: Commissioner Ervin, you
18 have a questions, sir?

19 COMMISSIONER ERVIN^[A/V]: [Indicating/inaudible.]

20 CHAIRMAN J. WILLIAMS: Commissioner Ervin, I
21 believe you're muted.

22 COMMISSIONER ERVIN^[A/V]: [Indicating/inaudible.]

23 CHAIRMAN J. WILLIAMS: You're still muted,
24 sir.

25 COMMISSIONER ERVIN^[A/V]: Can you hear me now?

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Re: Introductions, Activities of E⁴, Merger of E⁴Carolinas/SCCEBA,

1 CHAIRMAN J. WILLIAMS: Yes, sir. Please –

2 COMMISSIONER ERVIN^[A/V]: Thank –

3 CHAIRMAN J. WILLIAMS: – proceed.

4 COMMISSIONER ERVIN^[A/V]: – you, Mr. Chairman.

5 CHAIRMAN J. WILLIAMS: You have the floor.

6 COMMISSIONER ERVIN^[A/V]: Thank you.

7 Let me thank the panel for this informative
8 presentation today. It's been most helpful. One
9 of the things that we are facing, as a Public
10 Service Commission in South Carolina, is to deal
11 with getting our arms around the myriad
12 technological advances in the area of power
13 production, distribution, storage, generation.
14 There's so many important issues that are going to
15 be coming before us. And I see you-all as a
16 resource, a very exciting resource, that you can
17 advise the Commission. I hope that you will be
18 intervening in some of these proceedings, because,
19 as you know, we are very limited, as the Chairman
20 said. Because we are subject to the Code of
21 Judicial Conduct, we cannot have ex parte
22 communications. We can't pick up the phone and
23 give you a call, nor can you contact us. We can't
24 e-mail you, nor can you e-mail us. And we can't do
25 site visits. You know, as much as we'd like to see

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Re: Introductions, Activities of ^{E4}, Merger of ^{E4}Carolinas/SCCEBA,

1 that Clemson facility down on the coast looking at
2 wind, we're not allowed to do site visits.

3 So I think that the best role that I could see
4 for your participation would be to actively
5 intervene in dockets that you think you can provide
6 some technical assistance, particularly as it comes
7 to expert testimony, because we are limited on our
8 small staff, due to budget constraints and the
9 salary that it would take to hire a nuclear
10 engineer. We can't hire one at State employee
11 rates. We won't be able to. So we are left with a
12 knowledge gap, and I see you as well-suited to step
13 in and help us and help the people of South
14 Carolina and the business and industry in our State
15 to try to make better informed decisions that we're
16 going to be called upon to make.

17 And I'll just speak to a couple of areas that
18 I'm concerned about. We hear so much about grid
19 resilience. We hear so much about how do we best
20 prepare for extreme weather events. Obviously,
21 that's become an issue. We've seen recent examples
22 in Texas where the whole grid of ERCOT collapsed,
23 and they're still trying to figure it out. And
24 they say they're ready for the next extreme weather
25 event, but I'm not so sure they are.

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1 We also saw a terrible hurricane hit the
2 Louisiana coast and wipe out all the transmission
3 lines that fed New Orleans. One of them actually
4 fell into – the tower fell into the Mississippi
5 River. And it's taken months to try to restore
6 transmission lines.

7 How can we plan in advance so that we are not
8 victimized in South Carolina and North Carolina as
9 we have these extreme weather events? How can we
10 harden the grid? What's the best practice in terms
11 of resiliency planning?

12 I commend the Office of Regulatory Staff for
13 their recent report that we just received this past
14 week, which deals with some of these issues. They
15 hired Guidehouse, a very highly respected
16 investigative firm, and they took a look at all of
17 the utilities in our State, and I commend that
18 study to you if you've not reviewed it yet. But
19 there are gaps when it comes to smaller utilities.
20 So how can we, as a Public Service Commission,
21 follow up with the Office of Regulatory Staff to
22 see that these smaller utilities, like water
23 companies, sewer companies, that are serving rural
24 areas in our State – how can we bring them up to
25 speed on resiliency?

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Re: Introductions, Activities of E⁴, Merger of E⁴Carolinas/SCCEBA,

1 I don't know the answers, but this is going to
2 be one of the things that we're confronted with
3 immediately in terms of how best do we incorporate
4 this planning and execution when you're dealing
5 with entities that cross state lines? We
6 understand that, you know, that our investor-owned
7 utilities don't just operate in South Carolina, so
8 there has to be some regional planning. I hope
9 that you can fill that need. Because we can't
10 always know what the North Carolina Utilities
11 Commission is doing. We try to stay abreast of it,
12 but you can be there and you can perhaps report
13 back or give us kind of an idea of what the plan
14 is. And I know that investor-owned utilities want
15 to do that, as well, and we respect that and look
16 forward to that input.

17 Finally, I want to say we are so proud to have
18 one of our former South Carolina Public Service
19 Commission chairmen serving our entire nation as
20 Chair of the Nuclear Regulatory Commission. So,
21 David Wright, I want to commend you. We are so
22 proud of the work that you're doing in Washington,
23 DC. I'm hearing great things about your work. And
24 I've got a request – and I'm not going to go into
25 the specifics, because I don't want to ex parte

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Re: Introductions, Activities of E⁴, Merger of E⁴Carolinas/SCCEBA,

1 you. But I will tell you I had asked Duke Energy
2 to consider reapplying to the Nuclear Regulatory
3 Commission for an extension of their license, which
4 is about to expire in the next 10 years, as I
5 recall. And I'm hopeful that not just with the
6 facility at Oconee Nuclear but all facilities, that
7 the NRC will consider, where appropriate, and where
8 safety standards can be met and established, that
9 we extend the life of these facilities that have
10 been serving us so well for so many years. You
11 know, if you just look at what happened in our
12 State: A great safety record by Duke, a great
13 employer that has served us so well over the years.
14 And we need to keep that facility open and
15 operational, to the extent that we can. And I
16 would encourage you, at the appropriate time, to
17 look at that issue, because we need – we need
18 alternative sources of power generation that don't
19 depend on solar or wind. And part of that is going
20 to have to be nuclear. And I think that,
21 unfortunately, some countries in western Europe –
22 they've written off the nuclear industry and chosen
23 to close those plants, and that's a big mistake,
24 because extending the life, I think, of those
25 facilities where they can be extended to meet

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Re: Introductions, Activities of E⁴, Merger of E⁴Carolinas/SCCEBA,

1 safety requirements, is imperative to a clean
2 energy future for not just South Carolina but for
3 our entire nation.

4 Finally, I want to ask you – I know that
5 you're looking at North Carolina, and I know North
6 Carolina currently is expanding their charging
7 stations, not just to the cities but to rural
8 areas. They're doing it through a State grant
9 program. So I hope you're going to look at that,
10 because so many auto manufacturers in this country
11 have made a substantial commitment to electric
12 vehicles, and it's coming. And we've got to be
13 prepared for it. And I don't know how we begin to
14 build out a charging infrastructure in South
15 Carolina, but we need a plan. So I hope that
16 perhaps that's going to be part of your research,
17 to come up with a plan that will serve our needs –
18 not just residential needs but the private sector
19 needs of industry and commerce around the State –
20 and get that charging network in place as soon as
21 possible.

22 If you'd like to comment on that, I'd look
23 forward to hearing your response. And, again,
24 thank you for your presentation today.

25 Thank you, Mr. Chairman.

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1 **MR. W. ADAMS [E⁴Carolinas]:** Mr. Chairman, I'll
2 just give one comment and then turn it over to Jeff
3 and John. Commissioner Ervin raises a bunch of
4 great questions that I think Jeff and John can best
5 answer.

6 I will just note, on the intervention
7 question, that we are barred by our tax status.
8 We're a 501(c)(6), so, unfortunately, we can't
9 intervene. But I think the alternative to that is
10 us to do what we're doing today. I mean, we could
11 do an annual briefing. We can come as often as
12 you – we can come every two years, every year,
13 whatever you want us to do. But that's the
14 workaround where we could really probably be useful
15 to you in this setting, if y'all have found this
16 productive. So, unfortunately, we can't intervene,
17 but we can do what we're doing here today.

18 So, Jeff, you had a thought about the
19 resiliency and some of the other stuff.

20 **HON. J. MERRIFIELD [E⁴Carolinas]:** Yeah, I
21 would say two things. On that last thought, I
22 mentioned this; we can also provide sort of
23 targeted information if there are areas in which
24 you'd like to have additional information. I
25 mentioned a briefing that I provide on advanced

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1 nuclear. We, obviously, do a lot of hydrogen work;
2 we could have a more tailored program providing
3 more information about what's going on there.
4 Alternative energies. There's any number of areas
5 where we have the resources in a format like this,
6 open to the public, to give you a briefing on areas
7 that would be of interest to the Commission and
8 enhance your ability to make the decisions you need
9 to make.

10 I would say a comment – I want to follow up on
11 my good friend, David Wright. We're all very proud
12 of the work that he's done. He has jumped into his
13 role as a Commissioner of the Nuclear Regulatory
14 Commission with both feet. He is very well-liked;
15 he's really making a difference. And I am pleased
16 to say, like many of you, he's my friend, and I'd
17 do all I can to help him in that role and be
18 successful.

19 As it relates to the existing fleet of nuclear
20 power plants, there are 94 operating nuclear power
21 plants in the US. All of them at this point have
22 pretty much received an extension on their original
23 40-year licenses to allow them to operate for 60
24 years. The Commissioner mentioned a further
25 opportunity for an additional extension of 20 years

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1 that would allow those to operate for a total of
2 80. Those reviews are currently underway. From my
3 personal standpoint, knowing those plants – and
4 I’ve visited all of them – every plant in South
5 Carolina and North Carolina is in a position to be
6 relicensed. They’re operated very safely as a
7 fleet, and, certainly, I would encourage that for
8 the continued stability of clean energy generation
9 in the Carolinas.

10 I would note the NRC is making initial
11 discussions about the potential for a further
12 extension that would allow those facilities to be
13 used for 100 years. I think that is
14 technologically feasible and, frankly, these
15 facilities look a lot different than they did when
16 they were first built. I think that’s – I would
17 certainly commend the utilities, writ large, for
18 the investments that have been made to keep those
19 facilities up-to-date, safe, and put them in a
20 position for those extended operations for the
21 states in which they serve.

22 With that, John, did you have anything else
23 you wanted to say?

24 **MR. J. MORRISON [E⁴Carolinas]:** Just to respond
25 to the question about the charging infrastructure.

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1 I don't think it's the place or the role for E⁴ to
2 create the plan for that. However, what we can do,
3 and it's demonstrated in some of this research, is
4 we can pull together the basic information that
5 will help whoever the deciders, the decision-
6 makers, the plan creators are to make a full and
7 robust and useful plan out of that. Because of the
8 context we have, because of the staff that we have
9 to collect that information, I think we can be that
10 source for doing that kind of work.

11 **COMMISSIONER ERVIN**^[A/V]: Very good. Well, I
12 appreciate those responses. And, again, thank you
13 so much, and thanks for the clarification on your
14 status as a potential intervenor, where I
15 understand. And I think that, perhaps, Mr.
16 Chairman, our Staff, our technical Staff could
17 begin a process of thinking about how we could do
18 this on a regular basis, because it has been most
19 informative. And I'd like to see us do a semi-
20 annual if maybe not even – we could even do a
21 quarterly ex parte with these folks, because we
22 learn so much when we hear these developments. And
23 we have – you know, you-all have a wealth of
24 research available to you, that we do not. So,
25 somehow, we've got to keep those lines of

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1 communication open. And so I'm going to challenge
2 our Staff to work with your staff and ORS to figure
3 out a way to do it that serves the public interest
4 and also commerce and industry in the Carolinas.
5 Thank you again for coming today.

6 Thank you, Mr. Chairman.

7 **MR. J. MORRISON [E⁴Carolinas]:** Thank you for
8 those comments. Let me just reiterate something,
9 and this is something that the ORS staff is
10 currently doing. But there's, I think, every
11 reason for the Commission Staff to attend some of
12 the workshops and leadership training that we do.
13 Jeff mentioned the boot camp, but we also have some
14 more in-depth training that goes over six sessions
15 over the course of a year, that help individuals
16 understand the energy industry in our region. So
17 that's certainly open to, you know, Staff and we'd
18 be happy to have that participation.

19 **COMMISSIONER ERVIN^[A/V]:** Well, we are proud of
20 our Chairman, Justin Williams. He's participating
21 in Leadership South Carolina right now, and he's
22 using his annual leave to go to some of those
23 sessions. And, you know, there's tremendous
24 leadership on this Commission. I'm so impressed
25 with the new members that have come on and brought

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1 so much to the table.

2 So, you know, if we can do a leadership boot
3 camp within the rules of engagement, so to speak,
4 without violating any codes of conduct or statutory
5 provisions, I welcome that. And maybe we can have
6 that in-house. You know, impose on you to bring it
7 to us. And, you know, we can do it live and make
8 it transparent. I think it would be a great thing,
9 because, again, we want to do the long-term
10 planning, but right now, honestly, we're limited in
11 our resources. And so I see this as a great
12 opportunity for the Commission to expand its
13 knowledge as it relates to all these challenges.
14 Thank you again for coming.

15 Thank you, Mr. Chairman.

16 **MR. J. MORRISON [E⁴Carolinas]:** Thank you.

17 **CHAIRMAN J. WILLIAMS:** Thank you, Commissioner
18 Ervin.

19 Commissioner Ervin – I'm sorry. Commissioner
20 Caston.

21 **COMMISSIONER CASTON:** Not to drag this on any
22 longer, but I would be remiss, since I've of heard
23 former Representative David Wright and former
24 Commissioner David Wright. He was also a former
25 Clemson graduate –

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[Laughter]

– and also a former trackster at Clemson, which is where I really first met David. I consider him not just a good man but a good friend. And I'll say this, for the record: that if we had to run anything probably over 600 yards – I'll say 400 meters – he's probably going to beat me, and beat me unmercifully; but if it was 400 yards or shorter, he didn't stand a chance.

[Laughter]

So pass that on to him. Tell him I said hello.

HON. J. MERRIFIELD [E⁴Carolinas]: I will.

COMMISSIONER CASTON: Thank you.

HON. J. MERRIFIELD [E⁴Carolinas]: Thank you, very much.

CHAIRMAN J. WILLIAMS: All right. If there is nothing else, we are adjourned. Thank you.

[WHEREUPON, at 11:38 a.m., the proceedings in the above-entitled matter were adjourned.]

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Re: Introductions, Activities of ^{E4}, Merger of ^{E4}Carolinas/SCCEBA,C E R T I F I C A T E

I, Jo Elizabeth M. Wheat, CVR-CM-GNSC, Notary Public in and for the State of South Carolina, do hereby certify that the foregoing is, to the best of my skill and ability, a true and correct transcript of all the proceedings had regarding a requested allowable ex parte briefing in the above-captioned matter before the PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA;

IN WITNESS WHEREOF, I have hereunto set my hand and seal, on this the 6th day of February, 2022.



Jo Elizabeth M. Wheat, CVR-CM/M|GNSC
Hearings Reporter - Public Service Commission
of South Carolina

Notary Public in/for the State of South Carolina
My Commission expires: January 12, 2031.

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